

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	28	(methanotrophic near2 bacteria) and feed	USPAT	OR	OFF	2005/03/31 15:09
L2	4	(methanotrophic near2 bacteria) and (animal near2 feed)	USPAT	OR	OFF	2005/03/31 15:09
L3	68	(methanotrophic near2 bacteria)	USPAT	OR	OFF	2005/03/31 15:10
L4	1	l3 and ((produce or produced or make or production or making or manufacture or generate or manufacturing or manufactured or generating or generated) near2 feed)	USPAT	OR	OFF	2005/03/31 15:13

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623SQS

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 FEB 25 CA/CAPLUS - Russian Agency for Patents and Trademarks  
(ROSPATENT) added to list of core patent offices covered  
NEWS 4 FEB 28 PATDPAFULL - New display fields provide for legal status  
data from INPADOC  
NEWS 5 FEB 28 BABS - Current-awareness alerts (SDIs) available  
NEWS 6 FEB 28 MEDLINE/LMEDLINE reloaded  
NEWS 7 MAR 02 GBFULL: New full-text patent database on STN  
NEWS 8 MAR 03 REGISTRY/ZREGISTRY - Sequence annotations enhanced  
NEWS 9 MAR 03 MEDLINE file segment of TOXCENTER reloaded  
NEWS 10 MAR 22 KOREAPAT now updated monthly; patent information enhanced  
NEWS 11 MAR 22 Original IDE display format returns to REGISTRY/ZREGISTRY  
NEWS 12 MAR 22 PATDPASPC - New patent database available  
NEWS 13 MAR 22 REGISTRY/ZREGISTRY enhanced with experimental property tags  
  
NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT  
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005  
  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that  
specific topic.

All use of STN is subject to the provisions of the STN Customer  
agreement. Please note that this agreement limits use to scientific  
research. Use for software development or design or implementation  
of commercial gateways or other similar uses is prohibited and may  
result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 15:15:16 ON 31 MAR 2005

=> File Medline EMBASE Biosis Caplus agriculture chemeng chemistry food matdata  
materials reaction

FILE 'ENCOMPLIT2' ACCESS NOT AUTHORIZED

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'MEDLINE' ENTERED AT 15:16:04 ON 31 MAR 2005

FILE 'EMBASE' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Elsevier Inc. All rights reserved.

FILE 'BIOSIS' ENTERED AT 15:16:04 ON 31 MAR 2005  
Copyright (c) 2005 The Thomson Corporation

FILE 'CAPLUS' ENTERED AT 15:16:04 ON 31 MAR 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. .  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'AGRICOLA' ENTERED AT 15:16:04 ON 31 MAR 2005

FILE 'ANTE' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'AQUALINE' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'BIOBUSINESS' ENTERED AT 15:16:04 ON 31 MAR 2005  
Copyright (c) 1998 The Thomson Corporation.

FILE 'BIOCOMMERCE' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 BioCommerce Data Ltd. Richmond Surrey, United Kingdom. All rights reserved

FILE 'BIOTECHNO' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'CABA' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 CAB INTERNATIONAL (CABI)

FILE 'CBNB' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (c) 2005 ELSEVIER ENGINEERING INFORMATION, INC.

FILE 'CIN' ENTERED AT 15:16:04 ON 31 MAR 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2005 American Chemical Society (ACS)

FILE 'CONFSCI' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'CROPB' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE 'CROPU' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE 'DISSABS' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 ProQuest Information and Learning Company; All Rights Reserved.

FILE 'ENVIROENG' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'ESBIOBASE' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'FEDRIP' ENTERED AT 15:16:04 ON 31 MAR 2005

FILE 'FOMAD' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Leatherhead Food Research Association

FILE 'FOREGE' ENTERED AT 15:16:04 ON 31 MAR 2005

COPYRIGHT (C) 2005 Leatherhead Food Research Association

FILE 'FROSTI' ENTERED AT 15:16:04 ON 31 MAR 2005

COPYRIGHT (C) 2005 Leatherhead Food Research Association

FILE 'FSTA' ENTERED AT 15:16:04 ON 31 MAR 2005

COPYRIGHT (C) 2005 International Food Information Service

FILE 'GENBANK' ENTERED AT 15:16:04 ON 31 MAR 2005

FILE 'IFIPAT' ENTERED AT 15:16:04 ON 31 MAR 2005

COPYRIGHT (C) 2005 IFI CLAIMS(R) Patent Services (IFI)

FILE 'INVESTEXT' ENTERED AT 15:16:04 ON 31 MAR 2005

COPYRIGHT (C) 2005 Thomson Financial Services, Inc. (TFS)

FILE 'LIFESCI' ENTERED AT 15:16:04 ON 31 MAR 2005

COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'NAPRALERT' ENTERED AT 15:16:04 ON 31 MAR 2005

COPYRIGHT (C) 2005 Board of Trustees of the University of Illinois,  
University of Illinois at Chicago.

FILE 'NTIS' ENTERED AT 15:16:04 ON 31 MAR 2005

Compiled and distributed by the NTIS, U.S. Department of Commerce.

It contains copyrighted material.

All rights reserved. (2005)

FILE 'PASCAL' ENTERED AT 15:16:04 ON 31 MAR 2005

Any reproduction or dissemination in part or in full,  
by means of any process and on any support whatsoever  
is prohibited without the prior written agreement of INIST-CNRS.  
COPYRIGHT (C) 2005 INIST-CNRS. All rights reserved.

FILE 'PHIC' ENTERED AT 15:16:04 ON 31 MAR 2005

COPYRIGHT (C) 2005 T&F Informa UK Ltd.

FILE 'PHIN' ENTERED AT 15:16:04 ON 31 MAR 2005

COPYRIGHT (C) 2005 T&F Informa UK Ltd.

FILE 'PROMT' ENTERED AT 15:16:04 ON 31 MAR 2005

COPYRIGHT (C) 2005 Gale Group. All rights reserved.

FILE 'SCISEARCH' ENTERED AT 15:16:04 ON 31 MAR 2005

Copyright (c) 2005 The Thomson Corporation

FILE 'USPATFULL' ENTERED AT 15:16:04 ON 31 MAR 2005

CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 15:16:04 ON 31 MAR 2005

CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WATER' ENTERED AT 15:16:04 ON 31 MAR 2005

COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'APOLLIT' ENTERED AT 15:16:04 ON 31 MAR 2005

COPYRIGHT (c) 2005 FIZ Karlsruhe

FILE 'BIOENG' ENTERED AT 15:16:04 ON 31 MAR 2005

COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'BIOTECHABS' ENTERED AT 15:16:04 ON 31 MAR 2005

COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE 'BIOTECHDS' ACCESS NOT AUTHORIZED

FILE 'CEABA-VTB' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (c) 2005 DECHEMA eV

FILE 'CEN' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2001 American Chemical Society (ACS)

FILE 'COMPENDEX' ENTERED AT 15:16:04 ON 31 MAR 2005  
Compendex Compilation and Indexing (C) 2005  
Elsevier Engineering Information Inc (EEI). All rights reserved.  
Compendex (R) is a registered Trademark of Elsevier Engineering Information Inc.

FILE 'INSPEC' ENTERED AT 15:16:04 ON 31 MAR 2005  
Compiled and produced by the IEE in association with FIZ KARLSRUHE  
COPYRIGHT 2005 (c) INSTITUTION OF ELECTRICAL ENGINEERS (IEE)

FILE 'INSPHYS' ENTERED AT 15:16:04 ON 31 MAR 2005  
Compiled and produced by the IEE in association with FIZ KARLSRUHE  
COPYRIGHT 2005 (c) INSTITUTION OF ELECTRICAL ENGINEERS (IEE)

FILE 'KOSMET' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 International Federation of the Societies of Cosmetics Chemists

FILE 'PAPERCHEM2' ENTERED AT 15:16:04 ON 31 MAR 2005  
Paperchem2 compilation and indexing (C) 2005  
Elsevier Engineering Information Inc. All rights reserved.

FILE 'RAPRA' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 RAPRA Technology Ltd.

FILE 'WSCA' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 PAINT RESEARCH

FILE 'ALUMINIUM' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'ANABSTR' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (c) 2005 THE ROYAL SOCIETY OF CHEMISTRY (RSC)

FILE 'AQUIRE' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 US Environmental Protection Agency (EPA)

FILE 'BABS' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (c) 2005 Beilstein-Institut zur Foerderung der Chemischen Wissenschaften  
licensed to Beilstein GmbH and MDL Information Systems GmbH

FILE 'CAOLD' ENTERED AT 15:16:04 ON 31 MAR 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'CERAB' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'COPPERLIT' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Copper Development Association Inc. (CDA)

FILE 'CORROSION' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'ENCOMPLIT' ENTERED AT 15:16:04 ON 31 MAR 2005  
EnComplit compilation and indexing (C) 2005

Elsevier Engineering Information Inc. All rights reserved.

FILE 'IPA' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 American Society of Hospital Pharmacists (ASHP)

FILE 'JICST-EPLUS' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Japan Science and Technology Agency (JST)

FILE 'METADEX' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (c) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'NIOSHTIC' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 U.S. Secretary of Commerce on Behalf of the U.S. Government

FILE 'RDISCLOSURE' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Kenneth Mason Publications Ltd.

FILE 'TULSA' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 The University of Tulsa (UTULSA)

FILE 'TULSA2' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 The University of Tulsa (UTULSA)

FILE 'USAN' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 U.S. Pharmacopeial Convention, Inc. (USPC)

FILE 'WELDASEARCH' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (c) 2005 The Welding Institute (TWI)

FILE 'MEDICONF' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (c) 2005 FAIRBASE Datenbank GmbH, Hannover, Germany

FILE 'NUTRACEUT' ENTERED AT 15:16:04 ON 31 MAR 2005  
Copyright 2005 (c) MARKETLETTER Publications Ltd. All rights reserved.

FILE 'TOXCENTER' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 ACS

FILE 'ALFRAC' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 1994 U.S. Department of Commerce (DOC)

FILE 'ASMDATA' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 1994 by ASM International

FILE 'COPPERDATA' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 1992 Copper Development Association Inc. (CDA)

FILE 'GMELIN' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 MDL Information Systems GmbH

FILE 'MDF' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 1994 Cambridge Scientific Abstracts (CSA)

FILE 'PDLCOM' ENTERED AT 15:16:04 ON 31 MAR 2005  
Copyright Notice: Copyright (C) 1992 William Andrew, Inc. (WAI)

FILE 'PLASPEC' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 1997 BILL COMMUNICATIONS, INC.

FILE '1MOBILITY' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Society of Automotive Engineers, Inc.

FILE '2MOBILITY' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Society of Automotive Engineers, Inc.

FILE 'CIVILENG' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'DKF' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Dokumentation Kraftfahrwesen e.V., Germany

FILE 'EMA' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'ENERGY' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (c) 2005 USDOE for the IEA-Energy Technology Data Exchange (ETDE)

FILE 'HEALSAFE' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'INIS' ACCESS NOT AUTHORIZED

FILE 'MATBUS' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (c) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'MECHENG' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'MSDS-CCOHS' ENTERED AT 15:16:04 ON 31 MAR 2005  
Copyright Notice: Permission to copy is not required for this file

FILE 'MSDS-OHS' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 MDL INFORMATION SYSTEMS (MDL)

FILE 'PIRA' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Pira International

FILE 'PLASNEWS' ENTERED AT 15:16:04 ON 31 MAR 2005  
Copyright (C) 2005 Bill Communications, Inc. (BCI)

FILE 'SOLIDSTATE' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Cambridge Scientific Abstracts (CSA)

FILE 'TEMA' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 FIZ Technik e.V.

FILE 'TEXTILETECH' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Inst. of Textile Technology

FILE 'TRIBO' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT 2005 (c) BAM BERLIN

FILE 'WTEXTILES' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'CASREACT' ENTERED AT 15:16:04 ON 31 MAR 2005  
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT  
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'CHEMINFORMRX' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) FIZ-CHEMIE BERLIN

FILE 'DJSMONLINE' ENTERED AT 15:16:04 ON 31 MAR 2005  
COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE 'PS' ENTERED AT 15:16:04 ON 31 MAR 2005

COPYRIGHT (C) 2005 Thieme on STN

=> s (methanotrophic (2A) bacteria)

37 FILES SEARCHED...

75 FILES SEARCHED...

L1 4932 (METHANOTROPHIC (2A) BACTERIA)

=> s l1 and ((produce or produced or make or production or making or manufacture or generate or manufacturing or manufactured or generating or generated) (2A) feed)

2 FILES SEARCHED...

6 FILES SEARCHED...

16 FILES SEARCHED...

26 FILES SEARCHED...

33 FILES SEARCHED...

34 FILES SEARCHED...

40 FILES SEARCHED...

45 FILES SEARCHED...

62 FILES SEARCHED...

81 FILES SEARCHED...

94 FILES SEARCHED...

L2 6 L1 AND ((PRODUCE OR PRODUCED OR MAKE OR PRODUCTION OR MAKING OR MANUFACTURE OR GENERATE OR MANUFACTURING OR MANUFACTURED OR GENERATING OR GENERATED) (2A) FEED)

=> duplicate

ENTER REMOVE, IDENTIFY, ONLY, OR (?):remove

ENTER L# LIST OR (END):l2

DUPLICATE IS NOT AVAILABLE IN 'BIOCOMMERCE, FEDRIP, FOREGE, GENBANK, INVESTEXT, KOSMET, AQUIRE, CAOLD, RDISCLOSURE, USAN, MEDICONF, NUTRACEUT, ALFRAC, ASMDATA, COPPERDATA, GMELIN, MDF, PDLCOM, PLASPEC, MSDS-CCOHS, MSDS-OHS, PLASNEWS, CHEMINFORMRX, DJSMONLINE, PS'.

ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE

DUPLICATE PREFERENCE IS 'BIOBUSINESS, FEDRIP, USPATFULL, USPAT2'

KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n

PROCESSING COMPLETED FOR L2

L3 5 DUPLICATE REMOVE L2 (1 DUPLICATE REMOVED)

=> d l3 1-5 bib ab

L3 ANSWER 1 OF 5 USPATFULL on STN

AN 2004:334353 USPATFULL

TI Use of a single-cell protein as feed for fish and shellfish

IN Kleppe, Gunnar, Hafrsfjord, NORWAY

PI US 2004265431 A1 20041230

AI US 2004-486693 A1 20040708 (10)

WO 2002-GB3795 20020816

PRAI GB 2001-20047 20010816

DT Utility

FS APPLICATION

LREP SUGHRUE MION, PLLC, 2100 PENNSYLVANIA AVENUE, N.W., SUITE 800, WASHINGTON, DC, 20037

CLMN Number of Claims: 16

ECL Exemplary Claim: CLM-001-8

DRWN No Drawings

LN.CNT 254

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a feed material for fish and shellfish, for example a feed material for molluscs such as mussels. In particular, the invention relates to the use of single-cell protein materials and their derivatives (especially homogenized and/or autolysed derivatives) as a feed for fish and shellfish. A preferred single-cell material for use in the invention is that derived from a microbial culture comprising *Methylococcus capsulatus* (Bath) (strain NCIMB 11132), *Ralstonia* sp. DB3 (strain NCIMB 13287) and *Brevibacillus agri* DB5 (strain NCIMB 13289),



optionally in combination with Aneurinibacillus sp. DB4 (strain NCIMB 13288).

L3 ANSWER 2 OF 5 USPATFULL on STN  
AN 2004:190241 USPATFULL  
TI High growth methanotrophic bacterial strain  
IN Koffas, Mattheos, Wilmington, DE, UNITED STATES  
Odom, James M., Kennett Square, PA, UNITED STATES  
Schenzle, Andreas, Zuerich, SWITZERLAND  
PI US 2004147011 A1 20040729  
AI US 2003-701200 A1 20031104 (10)  
RLI Division of Ser. No. US 2001-934868, filed on 22 Aug 2001, GRANTED, Pat.  
No. US 6689601  
PRAI US 2000-229858P 20000901 (60)  
DT Utility  
FS APPLICATION  
LREP E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT RECORDS CENTER, BARLEY  
MILL PLAZA 25/1128, 4417 LANCASTER PIKE, WILMINGTON, DE, 19805  
CLMN Number of Claims: 31  
ECL Exemplary Claim: 1  
DRWN 6 Drawing Page(s)  
LN.CNT 5659

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A high growth methanotrophic bacterial strain capable of growth on a C1 carbon substrate has been isolated and characterized. The strain has the unique ability to utilize both methane and methanol as a sole carbon source and has been demonstrated to possess a functional Embden-Meyerhof carbon flux pathway. The possession of this pathway conveys an energetic advantage to the strain, making it particularly suitable as a production platform for the production of biomass from a C1 carbon source.

L3 ANSWER 3 OF 5 USPATFULL on STN DUPLICATE 1  
AN 2002:251243 USPATFULL  
TI High growth methanotrophic bacterial strain  
IN Koffas, Mattheos, Wilmington, DE, UNITED STATES  
Odom, James M., Kennett Square, PA, UNITED STATES  
Schenzle, Andreas, Zuerich, SWITZERLAND  
PI US 2002137190 A1 20020926  
US 6689601 B2 20040210  
AI US 2001-934868 A1 20010822 (9)  
PRAI US 2000-229858P 20000901 (60)  
DT Utility  
FS APPLICATION  
LREP E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT RECORDS CENTER, BARLEY  
MILL PLAZA 25/1128, 4417 LANCASTER PIKE, WILMINGTON, DE, 19805  
CLMN Number of Claims: 31  
ECL Exemplary Claim: 1  
DRWN 6 Drawing Page(s)  
LN.CNT 5562

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A high growth methanotrophic bacterial strain capable of growth on a C1 carbon substrate has been isolated and characterized. The strain has the unique ability to utilize both methane and methanol as a sole carbon source and has been demonstrated to possess a functional Embden-Meyerhof carbon flux pathway. The possession of this pathway conveys an energetic advantage to the strain, making it particularly suitable as a production platform for the production of biomass from a C1 carbon source.

L3 ANSWER 4 OF 5 BIOBUSINESS COPYRIGHT (c) 1998 The Thomson Corporation. on  
STN  
AN 92:20524 BIOBUSINESS  
DN 0431604  
TI Origin of phage particles in culture fluids during the industrial  
production of fodder protein with the use of **methanotrophic**

**bacteria:** The role of the bacteria in the discontinuing the fermentation process.

AU LOBANOV A O; TURIN V S; KRYLOV V N  
CS ALL-UNION RES. INST. GENET. SEL. IND. MICROORG., MOSCOW 113545, RUSSIA.  
SO BIOTEKHNOLOGIYA, (1992) NO.1, P.4-8.  
FS NONUNIQUE  
LA RUSSIAN  
AB There is a direct confirmation of the possibility that the phage lysis of the attending cultures may cause the death of the main culture in the article. Besides reviewed are the properties as follows: data received during electronic-microscope observations of bacteria during continuous fermentation proving the existing phages, specific for bacteria, which are in the special physiological state caused probable by the continuous character of fermentation.

L3 ANSWER 5 OF 5 FEDRIP COPYRIGHT 2005 NTIS on STN

AN 2005:43215 FEDRIP

NR ENRGY 77721

NC DOE/SBIR, FG05-93ER81483

TI Biological Removal of Coal Mine Methane

SF Principal Investigator: Clausen, E.C.; P.O. Box 3682, Hwy. 112, Fayetteville, AR, 72702

CSP Engineering Resources, Inc., Biomass Research Center

CSS Supported By: USDOE Energy Research.

DB Sep 8, 1993

DE Apr 1, 1994

FS Department of Energy

SUM Atmospheric concentrations of methane are currently increasing at a rate of one percent annually. Emissions of this greenhouse gas from coal mines now amount to about 65 million tons annually, and are increasing steadily. Methane adsorbed onto internal coal surfaces is released as the coal is mined. This gas is vented to the atmosphere from gob wells or with ventilation air. The methane concentrations are dilute, and recovery is rarely economical. This project involves a novel concept to convert waste methane into a high value product, single cell protein (SCP) for animal feed. **Methanotrophic bacteria** convert methane into cell mass with a high protein content that has been shown to be a suitable supplement for protein in animal and poultry diets. The fermentation is aerobic, requiring at least an equal volume of oxygen with methane; consequently, dilute methane concentrations are required. Phase I will screen the various methanotrophs to select those that have the fastest growth rates and highest yields of SCP. Continuous culture studies will be conducted with the best bacteria to define reaction kinetics and minimal reactor volume. The design and economics of a process to produce SCP from coal mine methane will be projected to determine feasibility. Phase II will define engineering and marketing parameters for large scale production of SCP. A prototype unit will be constructed and operated in phase III to demonstrate scale-up. Anticipated Results/Potential Commercial Applications as described by the awardee: There are 180 underground coal mines that discharge large quantities of methane into the atmosphere. The average discharge from the ten largest methane emitting mines is 11 million cubic feet per day. Conversion of the gas from one of these mines into SCP would generate \$30 million annually, requiring nominal capital and operating cost. Therefore, significant economic and environmental incentives exist for commercialization of the technology.

=> file stnguide

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

304.40

304.61

FILE 'STNGUIDE' ENTERED AT 15:22:38 ON 31 MAR 2005

USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE  
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Mar 25, 2005 (20050325/UP).